

Washington State Patrol - Toxicology Laboratory Division

The list provides a general overview of analytes that may be tested for by the Toxicology Laboratory, with corresponding method information and estimated expanded uncertainty, where applicable. Note that general screening includes enzyme multiplied immunoassay (EMIT) and/or basic drug screening by gas chromatography - mass spectrometry/nitrogen phosphorus detection (GC-MS/NPD). Case circumstances may require additional screening or targeted analyses, either in-house or by an external laboratory. The Toxicology Laboratory reserves the right to decide which method(s) to use. Please contact the laboratory at 206-262-6100 with any questions.			POS: reported as positive only Day of test: uncertainty calculated on a case-by-case basis	
Analyte Name	Confirmation Method Name	Typical Reporting Limit	Expanded Uncertainty	Coverage factor
Volatiles				
acetone	Headspace GC	10 mg/dL	day of test	
butane	Headspace GC/MS	POS	n/a	
desflurane	Headspace GC/MS	POS	n/a	
difluoroethane	Headspace GC/MS	POS	n/a	
ethanol	Headspace GC	0.01-0.02 g/100 mL	8.20%	k=3, 99.73%
ethyl chloride	Headspace GC/MS	POS	n/a	
isopropanol	Headspace GC	10 mg/dL	day of test	
methanol	Headspace GC	10 mg/dL	day of test	
sevoflurane	Headspace GC/MS	POS	n/a	
toluene	Headspace GC/MS	POS	n/a	
Basic Drugs				
bupropion**	GC/MS-NPD for basic drugs and metabolites	0.05-0.10 mg/L	18.93%	k=2, 95.45%
citalopram**	GC/MS-NPD for basic drugs and metabolites	0.05-0.10 mg/L	18.93%	k=2, 95.45%
cyclobenzaprine**	GC/MS-NPD for basic drugs and metabolites	qualitative		
dextromethorphan**	GC/MS-NPD for basic drugs and metabolites	0.05-0.10 mg/L	18.93%	k=2, 95.45%
diphenhydramine**	GC/MS-NPD for basic drugs and metabolites	0.05-0.10 mg/L	18.93%	k=2, 95.45%
ketamine	GC/MS for pain panel compounds	0.025 mg/L	day of test	
meperidine	GC/MS for pain panel compounds	0.025 mg/L	day of test	
methadone	LC/MS for methadone	0.01 mg/L	17.97%	k=2, 95.45%
norketamine	GC/MS for pain panel compounds	0.025 mg/L	day of test	
normeperidine	GC/MS for pain panel compounds	0.025 mg/L	day of test	
phencyclidine (PCP)	GC/MS for phencyclidine	0.01 mg/L	15.66%	k=2, 95.45%
tramadol	GC/MS-NPD for basic drugs and metabolites	0.05-0.10 mg/L	18.93%	k=2, 95.45%
trazodone	LC/MS for trazodone	0.05 mg/L	12.45%	k=2, 95.45%
venlafaxine**	GC/MS-NPD for basic drugs and metabolites	0.05-0.10 mg/L	18.93%	k=2, 95.45%
zolpidem	LC/MS for zolpidem	0.01 mg/L	19.18%	k=2, 95.45%
**NOTE: LC-MSMS method for quantitation of bupropion, citalopram, cyclobenzaprine, dextromethorphan, diphenhydramine, venlafaxine and O-desmethylvenlafaxine in use 8/7/2018 (reporting limit 0.01). Contact the laboratory for uncertainty information.				
Acidic/Neutral Drugs				
acetaminophen	HPLC	5.0 mg/L	27.54%	k=2, 95.45%

Washington State Patrol - Toxicology Laboratory Division

carbamazepine	GC for acidic and neutral drugs	qualitative		
carisoprodol	GC/MS for carisprodol and meprobamate	1.0 mg/L	27.74%	k=2, 95.45%
ibuprofen	GC for acidic and neutral drugs	qualitative		
lamotrigine	GC for acidic and neutral drugs	qualitative		
meprobamate	GC/MS for carisprodol and meprobamate	1.0 mg/L	27.74%	k=2, 95.45%
phenytoin	GC for acidic and neutral drugs	qualitative		
topiramate	GC for acidic and neutral drugs	qualitative		
valproic acid	GC for valproic acid	10 mg/L	57.77%	k=2, 95.45%
CNS stimulants				
amphetamine	LC/MS/MS for amphetamines	0.01 mg/L	12.95%	k=2.06, 95.45%
ephedrine	GC/MS for amphetamines	0.05 mg/L	15.41%	k=2, 95.45%
MDA	LC/MS/MS for amphetamines	0.01 mg/L	14.11%	k=2.06, 95.45%
MDMA	LC/MS/MS for amphetamines	0.01 mg/L	13.21%	k=2.06, 95.45%
methamphetamine	LC/MS/MS for amphetamines	0.01 mg/L	13.04%	k=2.06, 95.45%
pseudoephedrine	LC/MS/MS for amphetamines	0.01 mg/L	15.31%	k=2.06, 95.45%
Barbiturates				
amobarbital	GC/MS for barbiturates	0.50 mg/L	17.54%	k=2, 95.45%
butalbital	GC/MS for barbiturates	0.50 mg/L	17.54%	k=2, 95.45%
pentobarbital	GC/MS for barbiturates	0.50 mg/L	17.54%	k=2, 95.45%
phenobarbital	GC/MS for barbiturates	0.50 mg/L	17.54%	k=2, 95.45%
secobarbital	GC/MS for barbiturates	0.50 mg/L	17.54%	k=2, 95.45%
Cocaine and metabolites				
benzoylecgonine	GC/MS for cocaine and metabolites	0.01 mg/L	12.13%	k=2, 95.45%
cocaethylene	GC/MS for cocaine and metabolites	0.01 mg/L	12.13%	k=2, 95.45%
cocaine	GC/MS for cocaine and metabolites	0.01 mg/L	12.13%	k=2, 95.45%
Antidepressants				
amitriptyline	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
clomipramine	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
desipramine	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
desmethylclomipramine	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
desmethyldoxepin	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
desmethylsertraline	GC/MS for antidepressants (SSRI's) or GC/MS-NPD for basic drugs and metabolites	qualitative		
doxepin	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
fluoxetine	GC/MS for antidepressants (SSRI's)	0.025 mg/L	13.54%	k=2, 95.45%
imipramine	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
norfluoxetine	GC/MS for antidepressants (SSRI's)	0.025 mg/L	13.54%	k=2, 95.45%
nortriptyline	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%

Washington State Patrol - Toxicology Laboratory Division

paroxetine	HPLC for antidepressants or GC/MS-NPD for basic drugs and metabolites	qualitative		
sertraline	GC/MS for antidepressants (SSRI's) or GC/MS-NPD for basic drugs and metabolites	qualitative		
trimipramine	LC/MS/MS for antidepressants	0.025 mg/L	12.90%	k=2, 95.45%
Benzodiazepines				
7-aminoclonazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	qualitative (above 0.01 mg/L)		
7-aminoflunitrazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	qualitative (above 0.01 mg/L)		
alpha hydroxy alprazolam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
alprazolam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
chlordiazepoxide	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
clonazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
desalkylflurazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
diazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
flunitrazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
flurazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
lorazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
midazolam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
nordiazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
oxazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
quetiapine	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.02 mg/L	15.41%	k=2, 95.45%
temazepam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
triazolam	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	0.01 mg/L	15.41%	k=2, 95.45%
zopiclone	LC/MS/MS for benzodiazepines, quetiapine, and zopiclone	qualitative (above 0.01 mg/L)		
Cannabinoids				
carboxy-THC	LC/MS/MS for cannabinoids	5.0 ng/mL	14.45%	k=2, 95.45%
THC	LC/MS/MS for cannabinoids	1.0 ng/mL	25.96%*	k=3, 99.73%
		*26% used for calculation on report		
Opiates				
6-acetylmorphine	LC/MS/MS for opiates	2 ng/mL	16.53%	k=2, 95.45%
codeine	LC/MS/MS for opiates	0.01 mg/L	16.53%	k=2, 95.45%
hydrocodone	LC/MS/MS for opiates	0.01 mg/L	16.53%	k=2, 95.45%
hydromorphone	LC/MS/MS for opiates	2 ng/mL	16.53%	k=2, 95.45%
morphine	LC/MS/MS for opiates	0.01 mg/L	16.53%	k=2, 95.45%
oxycodone	LC/MS/MS for opiates	0.01 mg/L	16.53%	k=2, 95.45%
oxymorphone	LC/MS/MS for opiates	0.01 mg/L	16.53%	k=2, 95.45%
Miscellaneous Compounds - not routinely tested for unless requested				
amantadine	By request: GC/MS	qualitative		
brompheniramine	By request: GC/MS	qualitative		

Washington State Patrol - Toxicology Laboratory Division

bupivacaine	By request: GC/MS	qualitative		
buprenorphine	By request: LC/MS/MS	0.2 ng/mL	47.84%	k=2, 95.45%
carbon monoxide	By request: Co-oximetry	5% saturation	day of test	
chlorpheniramine	By request: GC/MS	qualitative		
cyanide	By request: Screen by Cyantesmo Test Strips	qualitative (above 0.25 mg/L)		
diltiazem	By request: GC/MS	qualitative		
doxylamine	By request: GC/MS	qualitative		
ethylene glycol	By request: GC/MS	qualitative		
etizolam	By request: GC/MS	qualitative		
fentanyl	By request: LC/MS/MS	0.5 ng/mL	17.16%	k=2.09, 95.45%
flubromazepam	By request: GC/MS	qualitative		
gabapentin	By request: LC/MS	1.0 mg/L	18.49%	k=2, 95.45%
GHB	By request: GC/MS			
guaifenesin	By request: GC/MS	qualitative		
levetiracetam	By request: GC/MS	qualitative		
lidocaine	By request: GC/MS (screen)	qualitative		
	By request: GC/MS (quantitation)	0.1 mg/L	day of test	
loperamide	By request: LC/MS	qualitative		
mesoridazine	By request: GC/MS	qualitative		
metaxalone	By request: GC/MS	qualitative		
methocarbamol	By request: GC/MS	qualitative		
methylphenidate	By request: GC/MS	qualitative		
metoclopramide	By request: GC/MS	qualitative		
mirtazapine	By request: GC/MS	qualitative		
mitragynine (Kratom)	By request: GC/MS	qualitative		
naloxone	By request: LC/MS/MS	0.2 ng/mL	47.84%	k=2, 95.45%
nefazodone	By request: GC/MS	qualitative		
norbuprenorphine	By request: LC/MS/MS	0.2 ng/mL	47.84%	k=2, 95.45%
norfentanyl	By request: LC/MS/MS	0.5 ng/mL	19.12%	k=2.09, 95.45%
oxcarbazepine	By request: GC/MS	qualitative		
pentazocine	By request: GC/MS	qualitative		
pheniramine	By request: GC/MS	qualitative		
phentermine	By request: GC/MS	qualitative		
phenylpropanolamine	By request: GC/MS	qualitative		
primidone	By request: GC/MS	qualitative		
procaine	By request: GC/MS	qualitative		
promethazine	By request: GC/MS	qualitative		
propoxyphene	By request: GC/MS	qualitative		
strychnine	By request: GC/MS	qualitative		
thioridazine	By request: GC/MS	qualitative		
verapamil	By request: GC/MS	qualitative		
zonisamide	By request: GC/MS	qualitative		

Washington State Patrol - Toxicology Laboratory Division

Synthetic cannabinoids ("Spice")	External Lab			
Synthetic cathinones ("Bath salts")	External Lab			
aripiprazole	External Lab			
baclofen	External Lab			
cetirizine	External Lab			
duloxetine	External Lab			
hydroxyzine	External Lab			
lithium	External Lab			
LSD	External Lab			
pregabalin	External Lab			
propofol	External Lab			
psilocin	External Lab			
risperidone	External Lab			
salicylates	External Lab			
synthetic opioids	External Lab			